

MARINE REVIEW.

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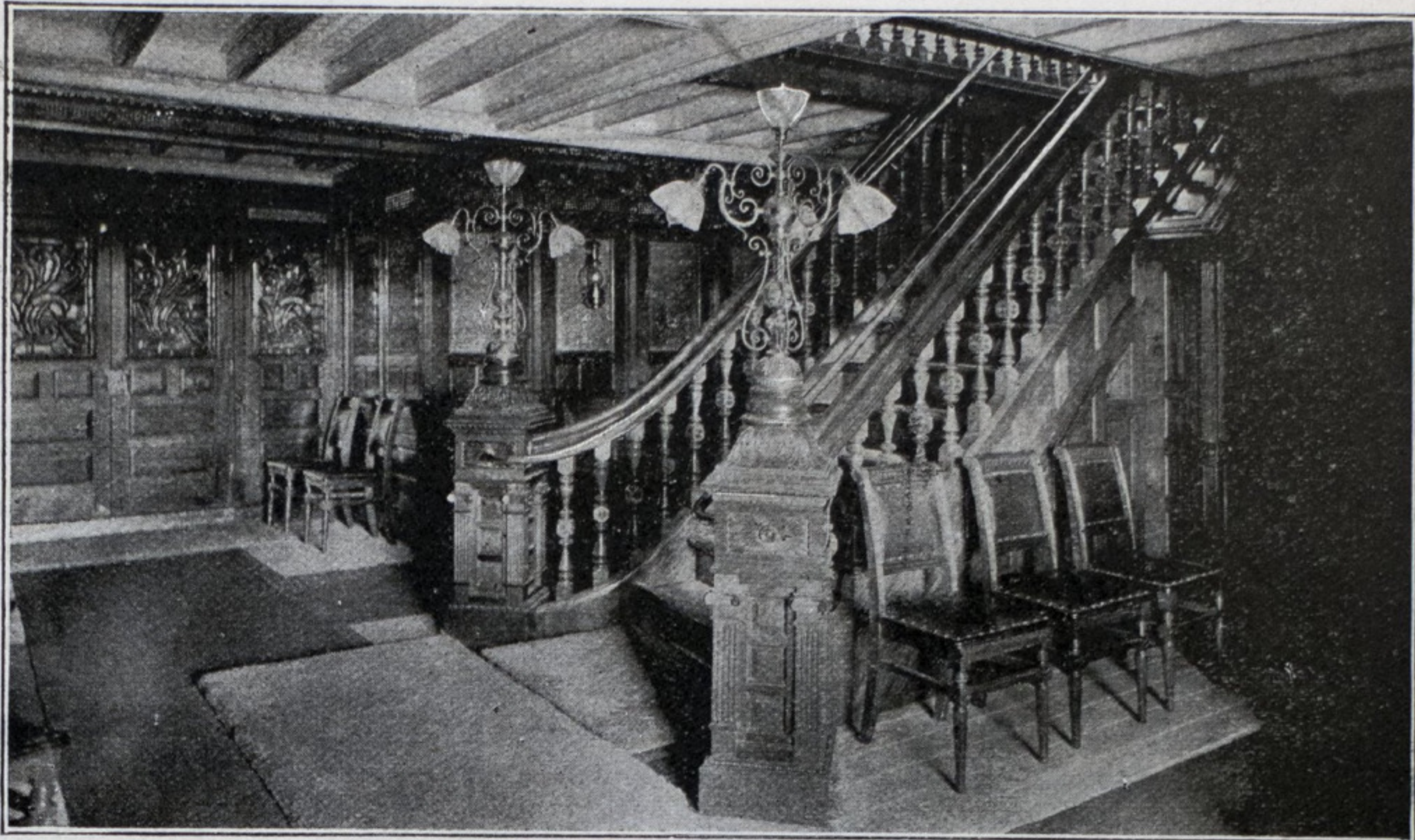
No. 6.

Twin-Screw Passenger Steamer Virginia in Service.

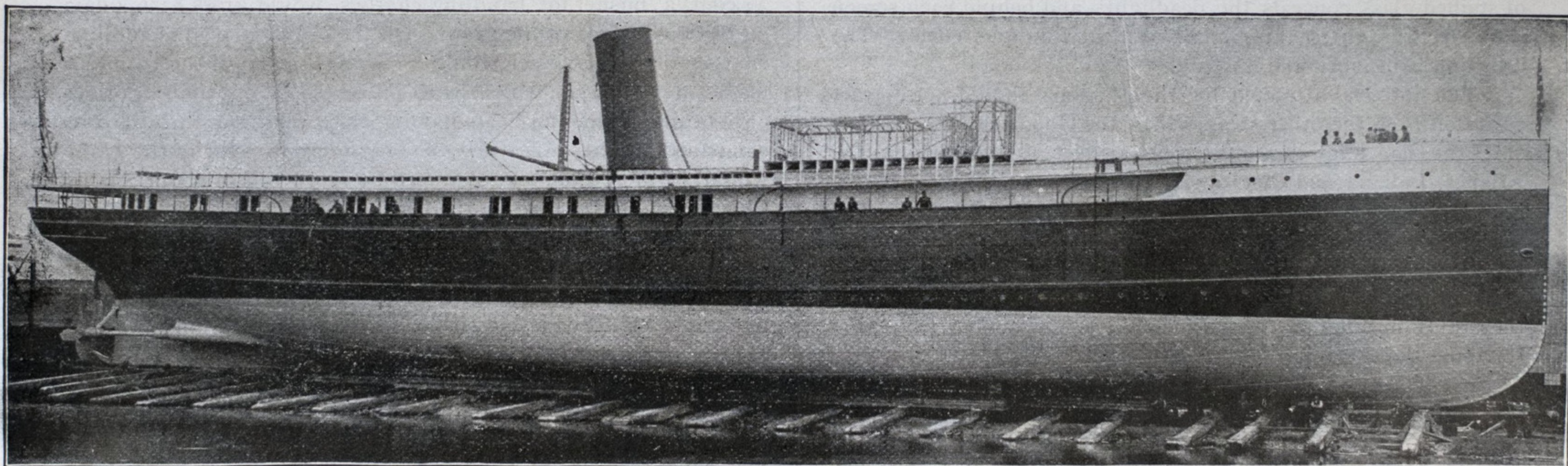


GOODRICH is a name that has been closely indented with Lake Michigan passenger business from its early days to the time

of its present growth, and if the present policy of the Goodrich company is continued, the name bids fair to continue its close relations with that business for many years to come. Now that the Virginia, the company's latest acquisition, built by The Globe Iron Works Company, Cleveland, has been in service



ENTRANCE TO MAIN SALOON.



THE VIRGINIA ON THE STOCKS READY TO LAUNCH.



THE MAIN SALOON.

almost a month, an account of what she is doing will be read with interest. Genuine compliments were paid the Virginia by a designing architect who has a reputation second to none on the lakes. That her twin triple engines worked like a chronometer, was the opinion of a mechanical engineer. That her furnishings and appointments are richer and more beautiful and comfortable than any passenger steamer on the lakes and equal in elegance to the transatlantic liners is the verdict of the 10,000 persons that have taken passage on the Virginia during the twenty days she has been in service. Fully 10,000 more who have visited the docks on reception days concur in the same opinion. The Virginia was not contracted by The Globe Iron Works Company to make 18 miles an

hour, but without the usual time for machinery to get in smooth running order she is making $18\frac{1}{2}$ miles an hour on the 83 mile run from Chicago to Milwaukee, an hour being required to go into Racine, take on passengers and get out on her course again. Every morning except Sunday she takes from 200 to 300 passengers out of Chicago and takes on from 200 to 300 at Racine, landing from 500 to 600 passengers at Milwaukee. Consider that sixteen passenger trains run between Chicago and Milwaukee daily and then conclude that the Virginia possesses a peculiar magnetism for the traveling public.

The dimensions and description of hull, twin screws, two triple engines, etc. have been given in the REVIEW, but by presenting the accompanying supplement and the illustrations, showing the steamship on the stocks ready to launch from the yard of The Globe Iron Works Company, and two interior views, a clearer idea of the boat is given than could be obtained from many columns of reading matter. For the benefit of those who cannot visit the Virginia it is suggested that they imagine the effect in the main saloon, carpeted with moquette in shades of blue, olive green and salmon, old gold plush covered furniture, polished mahogany wood work, paneled with lincrusta walton in cream color. Think of retiring in a state room on a mahogany bed screened by blue and yellow madras curtains, with velvet rugs strewn around the floor. Even more elegant are the eight large staterooms with Pullman berths amidships, carpeted with maroon moquette and hung in old gold plush and silk. The ceiling of the dining room, which is 55 feet long, 24 feet wide and 14 feet high, consists of lincrusta walton panels, each panel having an electric light pendant from the center. In addition to these lights four electroliers hang through the center. A screen of stained glass conceals the deadlights, and behind each screen is an electric light, making a beautiful and unique effect. The finishing is in ivory and old gold.

The interest attracted by the Virginia should not detract attention from the other steamers in the Goodrich line. She is only the flag ship of a million dollar fleet, three of which, the Atlanta, Indiana, and City of Racine, are practically new, having been added to the fleet during the last three years. The Goodrich Transportation Company steamers furnish a passenger service for Lake Michigan that is unequaled by any other company on the chain of lakes and the Virginia is an evidence that they think nothing that money can buy is too good for those who travel on their steamers.

Lake Freight Situation.

As a result of the boom in grain, the ore freight market has been very much unsettled, though strong enough, and it has been shown, notwithstanding a tendency to a settlement at lower rates, that the ore shippers mean to bring down all the ore that it is possible to move. Rates Thursday were \$1 from Escanaba and \$1.20 from Marquette with no settlement on the Ashland figure, as shippers from the head of Lake Superior had managed to pull through the grain excitement with their contract tonnage, and had not paid more than \$1.15, although they got no wild boats while Escanaba and Marquette dealers were bidding for the cargo space. The best rates paid were \$1.10 from Escanaba and \$1.25 from Marquette. A dozen to fifteen boats were put in at these figures while the market was pushed for tonnage. The situation is still strong and it is not probable that the basis of \$1 from Escanaba will be materially reduced, as the heavy movement of ore that is certain to continue to the close of navigation will crowd Chicago grain shippers, even on a tendency toward reduction in the amount of grain going forward. Conservative vessel owners will not lose sight of the fact, however, that ore has been sold at very low prices and shippers will not only avoid bringing down unsold ore but must use every effort to ward off high freights on the ore that has been sold at prices that can not well stand present carrying charges.

The situation is certainly against the shippers. More grain is reported to have been sold for export within the past few days, and it is well to see the stuff going out of the country, but those who calculated on low prices for its transportation are meeting with surprise. From Toledo and Detroit there is also a fair movement of grain to Buffalo at $1\frac{3}{4}$ to 2 cents, and this trade, with four to six cargoes a week, will demand twelve to fifteen large vessels right along. The manner in which ore is being shipped from the docks to furnaces is also helping the vessel interests. All of the Lake Erie docks are shipping ore in greater quantities than at any time last season. None of the loss sustained by the late opening is being made up in the shipments from the mines. Only at Two Harbors is there any sign of the loss being partially made up, and even at this port the shipments on Wednesday last were but 388,560 tons, against 464,271 tons on the corresponding date in 1890. Shipments from Two Harbors during July aggregated 184,032 tons, more ore than was ever shipped before from that port in a single month. The Lake Superior rate on soft coal has advanced to 50 cents.

Advantages in the Ore Trade.

Wheat during the past week has paid $3\frac{1}{4}$ cents from Chicago to Buffalo and by the ordinary way of figuring this would be equal to \$1.21 a ton on ore. Yet it is a fact that several owners, who could as well have sent their boats to Chicago, preferred chartering them to Escanaba for ore at \$1 a ton. In explanation of this the case of one owner may be cited. His steamer carries 2,600 gross tons of ore and to equalize matters her grain capacity will be placed at 95,000 bushels, the equivalent in wheat. On a seven-day trip this boat, after deducting $\frac{5}{8}$ cent a bushel for handling charges, would gross \$356 a day on 95,000 bushels of the grain. On the ore at 20 cents handling charges the same vessel would gross \$346 a day if the trip was made in six days, which with present good dispatch in ore is only ordinary time for boats having close relations with the ore companies. The difference of \$10 a day in favor of the grain would be more than counteracted by a tow bill of about \$75 in Chicago and extra risks of the Chicago river and the handling of the grain, as against comparatively nothing in the tow bill at Escanaba. While this is figuring on special dispatch with ore, it is admitted that the difference noted would warrant a seven-day trip with ore, and big steam vessels running alone are now getting dispatch in port that warrant such a trip.

Complimenting Lake Ship Builders.

In the August number of the Engineering Magazine, Horace See, naval architect of New York, has written another article of the series on "Building the Steamship in America." Mr. E. B. Ward is credited with establishing at Wyandotte in 1872 the first plant for the building of iron ships on the lakes. It was not a success, owing to the same difficulties which were encountered in the early days of iron shipbuilding on the Atlantic seaboard, but was purchased in 1879 by the Detroit Dry Dock Company and has since prospered in accordance with the change in favor of metal hulls. The writer speaks favorably of the plants and the work of all the lake builders and adds that the development of iron shipbuilding on the lakes contains many a lesson for the shipbuilder on the Atlantic. Young, enterprising and free from traditions of the past, the lake yards have introduced new labor-saving appliances which have enabled them to cut down the cost of production.

The importance of the mining industry of this country can be appreciated when it is considered that the value of the combined industries aggregates \$555,000,000, employing over 500,000 people.

MICHIGAN READERS OF THE REVIEW SHOULD TELL THEIR FRIENDS THAT THEY CAN HAVE THE MARINE REVIEW AND DETROIT TRIBUNE (WEEKLY) ONE YEAR FOR \$2.

Additions to the Lake Fleet for July.

The August 1 supplement to Lloyds Inland Register contains the names of five new vessels, all steam, aggregating 7,148 net tons and valued at \$555,000. The new vessels are:

Vessels.	Owners.	Home Port.	Net tons.	Value.
City of Berlin.....	James Davidson.	West Bay City.	1,711	\$130,000
City of Paris.....	James Davidson.	West Bay City.	1,714	130,000
City of Glasgow.....	James Davidson.	West Bay City.	1,672	130,000
City of London.....	James Davidson.	West Bay City.	1,675	130,000
Preston.....	P. F. Thrall.	Green Bay.	376	35,000
			7,148	\$555,000

The propeller O. T. Flint reappears with her valuation raised from \$70,000 to \$75,000. The schooner Monterey, which was ashore when the register was made up, gets a B1 rating and \$4,500 valuation. The schooner Owosco gets the same rate and \$4,000 valuation. The schooner W. H. Rounds is raised from B1 to A2½ and from \$5,000 valuation to \$5,500. The scow-barge Ben Brink, although not built this year, appears on the list for the first time with a B1 rating and \$7,000 valuation. The barge Nelson Bloom retains her valuation but advances from A2½ to A2.

Supplement No. 15 of the "Record of American and Foreign Shipping," published by the American Shipmasters' Association of New York, also contains the names of Capt. James Davidson's "Big Four," the wooden steamers City of Berlin, City of Glasgow, City of London and City of Paris, all of which are 320 feet long. The wooden steamer Iosco, 312 feet long, recently built by F. W. Wheeler & Co. for Penoyer Brothers of Au Sable, is also given a place in the record. No rating attends the classification of any of the boats but they are evidently considered about as good risks as anything that the book contains.

Cleveland Matters.

Hamilton Mills, Buffalo, was in Cleveland, Monday, to have some plate rolled that was required for the Empire State, which was in the Mills dry dock for extensive repairs.

In comparing the cargoes of ore carried in July of last year by the boats of the Minnesota Steamship Company with those carried during the past month, it is shown that the decrease this year is fully 200 tons a trip, on account of the low water. On the output of ore from Two Harbors alone loss from this source will foot up about 25,000 tons.

W. J. White's steam yacht Say When is undergoing some improvements. She is replacing the boiler put in by Hereschoff, her builder, with a Roberts water tube boiler. The Roberts boiler is gaining a strong foothold on the lakes, and the action of the steamboat inspection officials in giving more attention to material entering into the construction of tubulous boilers of all kinds will make them more popular.

Notices to Mariners.

A light-house established by the Dominion government on the south end of the island opposite the peninsula, at the entrance to Peninsula harbor, on the north shore of Lake Superior, in the district of Algoma, will be put in operation on August 1 next. The light will be a revolving white or bright light, the flashes attaining their greatest brilliancy every thirty seconds. The illuminating apparatus is catoptric. The light is elevated 105 feet above the level of the lake and should be visible in clear weather 16 miles from all points of approach. The light is intended as a lake coast light as well as to indicate the entrance to Peninsula harbor.

The Dominion government also gives notice that information has been received from Staff Commander J. G. Boulton, R. N., in charge of the hydrographic survey of the Georgian bay, of the existence of two rocks, dangerous to navigation, and not generally known, near Red Rock light-house, off Parry sound, in the Georgian bay. The one, with a depth of 9 feet on it, called Clark rock, is distant 1¼ nautical miles S. ½ E. from the light-house, and the other, with 14 feet over it, is one mile from the same on the same bearing.

The light-house board gives notice that, on or about Sept. 1, the present flashing light at Tawas (Ottawa) light-station, Lake Huron, will be changed to an occulting light, showing a fixed light for 25 seconds, succeeded by an eclipse of 5 seconds. The order of the light will not be changed. The light will show red between S. W. and N. W., to cover the shoal to the westward of the light-house, and will show white through the remainder of the arc.

Companies Interested in the Virginia.

The two independent condenser pumps for the Virginia's triple engines were furnished by the Chase Machine Company. The signal lights and side lights were manufactured by McBean, Edge & Co., Buffalo. The seventeen reducing valves regulating the pressure on the auxiliary engines were put in by the Mason Regulator Company. The induced draft is produced by Sturtevant blowers and engines. The Mather Electric Company furnished the two 400-light dynamos, which are run by Payne automatic engines. J. W. Grover & Son fitted the boat out.

Canadian Graving Dock Matters.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., Aug. 6.—The investigation into the alleged irregularities in connection with the Quebec graving dock is still dragging along and day by day it is shown to be merely a political move of the part of the opposition in the House of Commons. When it was hinted that an inquiry would be made into the way in which the Kingston dry dock contract was secured, the contractors, Connolly Bros requested that an investigation be proceeded with at once, as they had nothing to hide. It now looks as if an inquiry will not be held, as nothing could be found that appears to have been dishonest. The recommendation of Mr. Perley, civil engineer, and son of Mr. Perley, who was recently suspended by the government for accepting presents, that the dock be enlarged is not now looked upon with suspicion, the statement that the enlargement was not necessary having been raised by politicians opposed to him, his father and Connolly Bros. The dock proper is now finished and is expected to be in running order by Sept. 1. The work reflects great credit on Connolly Bros. and the engineer.

The government intends passing a bill calling for the inspection of tackle, etc., as well as hulls.

It is the intention of the Richelieu and Ontario Navigation Company to put extra steamers on the route between Kingston and Montreal during the next season and to make large and important improvements in the present steamers, so as to meet the increased requirements of the pleasure travel.

Advanced Wages.

At a meeting held Wednesday the Cleveland Vessel Owners' Association advanced wages of all employes on their vessels excepting the dining room help and chief engineers who are not in charge of triple expansion engines. Chief engineers operating triple expansion engines will be paid \$115 a month, seconds \$75, first mates \$80 and second mates \$60. Wages in all other cases are compared in the following table with the rates that have ruled since the opening of navigation.

	Schedule of August 6, 1891.	Schedule of March 9, 1891.
On Steamers.		
First engineers.....	\$90 to \$100 00	\$90 to \$100
Second engineers.....	65 to 70 00	55 to 65
First mates.....	65 to 75 00	60 to 70
Second mates.....	45 to 55 00	40 to 50
Cooks.....	45 to 55 00	40 to 50
Helpers.....	15 00	10 to 15
Firemen.....	30 to 37 50	25 to 30
Wheelmen.....	30 to 37 50	25 to 30
Lookout.....	30 to 37 50	20 to 25
Deck hands.....	15 to 18 00	15
Oilers.....	30 to 37 50	25 to 30
On Consorts and Sail—		
First mates.....	50 to 60 00	45 to 55
Second mates.....	35 to 45 00	30 to 40
Cooks.....	25 to 35 00	20 to 30
Seamen.....	30 to 37 50	25 to 30
Boys.....	20 00	15

In the different ports where seamen retain some power in organization wages have also been advanced.

Official Numbers and Tonnage.

Official numbers were assigned the following unrigged lake vessels by the bureau of navigation, W. W. Bates, commissioner, during the week ending August 1: Relief, Detroit, tonnage gross 159.15, net 151.20, No. 56,603; Swan, Sandusky, tonnage gross 58.54, net 38.54, No. 57,928.

Nickel Plate Excursion, August 17. Ninth annual Niagara Falls outing; Chautauqua free; Toronto, \$1 extra; liberal limits. Stop over to visit friends granted on return trip at Brocton or points west. Inquire of Nickel Plate agents.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 210 So. Water Street, CHICAGO, ILL., Aug. 6.

The squeeze in grain freights came on schedule time, as announced in the MARINE REVIEW last week. There is nothing to add. As to the future no one knows what it will be. There is a heavy short interest in lake freights, and vesselroom must be yet provided for a lot of wheat sold late in July for shipment the first half of August, but much of it will doubtless be held for a week or ten days. Wheat is entirely different in its forward movement from corn and oats. The latter go forward steadily, but wheat goes by spurts. It goes with a rush and then doesn't go at all. Its movement depends on speculative influences which change from day to day, from hour to hour. While corn is handled mainly by a few big houses, the crowd shipping wheat is a large one. That crowd was stampeded when the recent big bulge came. These occasional shippers are called 'shoemakers,' and they do some wonderful things. Now that wheat is to be the main item in grain freights from Chicago, vessel owners around the lakes must not be surprised at sudden and apparently inexplicable changes in rates. Lake freights will no longer have the strong, steadying hands of a few life-long shippers, as is the case when corn is the principal item. Owners will be unable to make calculations a day ahead as to grain rates, and it will be well to keep an eye on possible loads of ore until boats are definitely placed.

The board of United States engineers has reported to the secretary of war that Canal street bridge is an unreasonable obstruction to navigation. The engineers upheld the brief of the marine interests to the letter. That brief was very radical, and was bitterly attacked by the Canal street property owners who want the bridge. Now that it has been fully sustained by the board, there is a general expression of satisfaction by marine men and river interests.

Nothing is more important to the lake marine than the course to be taken by the Chicago drainage board in the improvement of Chicago river. It is admitted that the river must be widened and all the sharp bends taken out if the required amount of water is to go through it for the proper dilution of the city's sewage. Thus the drainage question and the improvement of the river for the purposes of navigation must go hand in hand. The drainage board can do great good or incalculable harm to vessel interests of the lakes. A practical marine man on the board to secure the first and guard against the latter seems to be imperatively needed. Two members of the board are to be elected next fall, and already there is considerable discussion as to the candidates. Were it anywhere else on the lakes but Chicago, the marine interest would present a candidate for one of the vacant places and work unitedly for his election. But it is certain that if any marine man desires the place, he must get it, not with the aid but against the wishes of Chicago vessel men generally. He must depend upon the covert if not open opposition of those engaged in his calling. Nothing weakens the influence of the marine interest in Chicago more than this important fact. A little of the spirit that makes the Cleveland Vessel Owners' Association the most powerful factor in the lake marine is sadly needed in Chicago. But it is lacking, and there is no use crying about it. The class of people who are opposed to improvement on the ground that "God never intended things to be that way" got so neat an answer by Col. Ludlow when the board of engineers was considering Canal street bridge that the instance deserves to be rescued from oblivion. George Rohrbach, representing Canal street property owners in a windy brief said: "God Almighty never intended boats 300 feet long to go up the south branch of the Chicago river." This to a board of engineers, whose sole duty it is to circumvent the plans of providence by improving waterways was somewhat startling, but Col. Ludlow bore the rebuke with great forbearance. "God Almighty never intended boats 300 feet long to go up the south branch" Rohrbach repeated in his speech summing up the arguments for his side. "Pardon me" Col. Ludlow interposed quietly, "but I must call your attention to the fact that you have introduced no evidence on that point." There was a laugh and Rohrbach sat down squelched.

Some exception has been taken to an item about the Michigan breaking in two. Of course there was, as it injured the value of the boat. The next day after the mishap it was represented that the Michigan was going to an elevator to load grain, but she has'nt gone yet, nor will she go until the insurance companies feel assured that her serious damages are so far repaired that she can take a load of grain without risk.

Marine underwriters call attention to what they consider the absolute necessity of collision liability insurance as shown by the result of the Armour-Marion collision case. If that decision is to hold in the higher courts the owners of the Marion would have saved money by not attempting to keep their boat from sinking after she had struck the Armour. Then they would have obtained their regular insurance, if the Armour had not succeeded in garnishing it. As neither boat carried collision liability insurance it can hardly be said that that class of insurance caused the collision.

When Davidson's steamer City of Glasgow took on her cargo of wheat

at the Indiana elevator, the captain thought he was loading her to a proper depth, but as soon as the tugs pulled him away from the elevator the big boat dropped down until she was drawing 16 feet 1 inch, or fully 6 inches more water than there was in the river. The harbor master tied him up to the dock until the water rose, which happened the next morning. The captain had not figured on being aground when he took on his cargo. The big boat took away only 82,000 bushels of wheat.

On every bridge here orders duly signed by the harbor master are placed that vessels must take the starboard draw whenever practicable. It is a dead letter, and boats follow the sweet will of their captains. If Harbor master Dean would see that the order is generally enforced he would do a great service to vessels, to the public using the bridges, and to every one else. Nothing is easier. All that is required is to give bridge tenders orders not to open for boats on the wrong side of the river, except when necessity compels, and the thing is done. Even light lumber steam barges, tugs towing mud scows, and canal boats get on the wrong side, and cause frequent blockades without any excuse or corresponding good to themselves.

Capt. John Prindiville has the spirit of the old time sailor. When sailing the Harry Higgins about four miles from shore Sunday in a stiff northerly wind, the rudder was carried away. He rustled the sails into proper trim, and sailed his yacht into port. There was an exciting time for a few minutes on board the Higgins, nevertheless.

Mining Companies will Build More Boats.

From statements recently published by the Lake Superior iron mining companies owning vessels for the transportation of their ores, it is learned that steamers like the La Salle and Joliet of the Lake Superior Iron Company, running exclusively in the ore trade, earned about \$30,000 net last year, or a profit of about 20 per cent. on the investment. This is based, of course, on season rates made in the open market in the spring, which were higher than the going rates during the summer months. The depreciation on this class of metal boats can hardly be figured at more than 5 per cent., and there is accordingly a great deal in this showing to be considered in the present advance in lake freights, as the wild rates that have ruled so far with indications of going still higher for the remainder of the season would enable this same class of vessels to make a similar showing for 1891 if chartered from trip to trip.

There is only one conclusion to draw from these figures, and that is a tendency on the part of the mining companies to still further provide for the transportation of their own ore. The conditions through which high freights were brought on this season are, of course, peculiar and do not warrant any addition of tonnage to the present fleet but there are indications that next spring will find the ore docks empty with more grain to move than in any previous spring for several years past, and shipbuilders stand ready to build vessels at low prices. It would not be surprising, therefore, if some vessels are built for the mining companies during the coming winter. There is talk of the Minnesota Steamship Company, adding to its fleet of steel vessels, and such a move would seem fitting on the part of that company, as their transportation facilities at present are by no means equal to their output of ore at Two Harbors, and the deal recently settled, through which this steamship company becomes a part of the combination controlling the Minnesota Iron Company, Chicago and Minnesota Ore Company, Chandler Iron Company, Duluth and Iron Range Railway and Illinois Steel Company, means a great deal in the way of further development of Minnesota mineral properties and shipments of ore from Two Harbors.

Other mining companies are also known to have surplus money enough to build vessels, with connections that will enable them to handle floating property conveniently and it is more than probable that the steel steamer for which \$200,000 or more had been charged by the builders within the past two years could be duplicated for \$170,000 to \$180,000. The Menominee fleet of steamers working in connection with the Chapin Mining Company, are certainly better property than they were last winter and it is settled that they will continue connection with that company.

Record of Speed and Big Cargoes.

[Masters or owners are invited to report improvement on this list.]

Iron ore: Lake Michigan—Maryland, Inter-Ocean Transportation Company, of Milwaukee, 3,322 gross, or 3,737 net tons, Escanaba to South Chicago, draft 16 feet 6 inches; E. C. Pope, Dry Dock Navigation Company of Detroit, 3,221 gross, or 3,608 net tons, Escanaba to Ashtabula, draft about 16 feet. Lake Superior—E. C. Pope, Dry Dock Navigation Company, of Detroit, 2,745 gross, or 3,104 net tons, Ashland to Lake Erie, draft 14 feet 5 inches.

Grain: W. H. Gilcher, J. C. Gilchrist, of Cleveland, 114,982 bushels of corn, Chicago to Buffalo; America, M. M. Drake, of Buffalo, 111,507 bushels of corn, Chicago to Buffalo.

Speed: Owego, Union Line, of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line, of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$ 80 00
Champion Iron Company.....	25 00	.....	87 50
Chandler Iron Company.....	25 00	37 00	39 00
Chicago and Minnesota Ore Company.....	100 00	.....	95 00
Jackson Iron Company.....	25 00	90 00	.....
Lake Superior Iron Company.....	25 00	.....	52 50
Minnesota Iron Company.....	100 00	71 50	73 50
Pittsburg Lake Angeline Iron Co.....	25 00	132 50	135 00
Republic Iron Company.....	25 00	.....	.....
Ashland .....	.....	.....	52 50

Republic stock is about the only mining security that has attracted any attention in the market outside of the Minnesota deal during the past week. Shares have sold as low as \$25 on account of the fire, regarding which there is no definite estimate as yet on damages. Mr. W. D. Rees president of the company, is at the mine and will give personal attention to operations looking to a renewal of work. Advices from him Thursday were to the effect that some smoke was still coming from the mine and work had not been resumed. The officers of the company still claim, however, that contracts for ore will be carried out all right, as the estimated product of the mine was not fully sold up, and that loss resulting from delay will be of more importance than actual damage to the mine from fire.

Michigan's governor has appointed a World's Fair commission of six members and the upper peninsula is not represented among them. A great deal of grumbling has resulted among the mining interests but it is thought that a reconsideration of the appointments can be secured. Peter White of Marquette is named as a representative of the mining region who would satisfy everybody concerned.

The Brotherton, one of the Gogebic range mines which produces a good grade of ore, has been slow in coming into the market on account of low prices prevailing early in the season, but its representatives are now said to have sold 50,000 tons. A recent find at the Pence mine, on the same range, appears to be very extensive and has given an impetus to explorations in that vicinity.

The Anderson Iron Company, of Duluth, capital stock \$1,000,000, has filed articles of incorporation. The incorporators are A. R. Macfarlane, W. C. Sherwood, James T. Hale, Duluth. The company owns the property known as the Anderson near Ely where explorations are being carried on with a diamond drill.

The Chapin company has increased its force and is sending out about 3,000 tons a day but the season's product of the big Menominee range property can not reach 500,000 tons as against 750,000 last season.

The contract for construction of cruiser No. 13 has been awarded to the Messrs Cramp for the sum of \$2,690,000. This was the figure of the Bath Iron Works bid, but time was an object and the Bath people admitted that the Cramps could probably handle the work easier. The requirements are the same as for cruiser No. 12. She is to make not less than 21 knots an hour, maintained for four hours, with a premium of \$50,000 for every quarter knot over that, and an equal penalty for deficiency. The contract also contains time penalties.

Lake Superior Company's Annual Report.

Stockholders of the Lake Superior Iron Company are in receipt of the annual report for 1891, which shows gross receipts amounting to \$1,364,603.25, with expenditures aggregating \$1,070,276.01, and a net profit of \$475,862.16. The company paid \$4 a share in dividends during the year, and has just made another division of \$2 a share on the new year. An excellent showing was made by the two steamships of the company which were in commission during the season. The company now has four steamers in service. Mr. J. S. Fay, Jr., of Boston, treasurer and general manager, says with reference to the present year: "The outlook is decidedly poor. Fairly large sales of the current product have been made, but the prices obtained were very low. The company's steamers will only earn a moderate living, but the buildings, equipment and preparatory work at the mine are in such excellent condition that it should enable the business to be conducted with economy. In the meantime it will be my policy to keep the work of development under ground well up to, and in advance of the current product, but to economize in every other direction." Mr. Fay's opinions with regard to the present season, were, of course, advanced some time ago, when the ore was being sold at low prices and when the vessels were placed at correspondingly low figures. Notwithstanding improvement in the trade the opinion still holds good as far as profits are concerned, as the Lake Superior in common with other companies sold the great bulk of its product at low prices. The vessels are an assistance to the company in guarding against the advanced rates of freight now being paid in the general carrying trade. A statement from Mr. C. H. Hall, mine agent, regarding workings in the mine, accompanies Mr. Fay's report.

The Minnesota Mining Deal.

The deal announced in the REVIEW last week, through which capitalists now in control of the Minnesota Iron Company, Duluth & Iron Range Railway Company, Chicago & Minnesota Ore Company, Chandler Mining Company, Minnesota Steamship Company and in fact the Illinois Steel Company will more closely unite the interests of these big corporations, may be delayed somewhat on account of detail in connection with its going through. About 90 per cent. of stock of the Chicago and Minnesota Ore Company is committed to an agreement to sell on the basis proposed—one and a quarter shares of Minnesota Iron Company's stock for one share of Chicago and Minnesota Ore stock. The Minnesota Iron Company has an authorized capital of \$20,000,000 with \$14,000,000 issued, and in order to make the new purchase the issue of Minnesota stock will be increased to \$17,000,000. The arrangement gives the Chicago and Minnesota owners a regular dividend paying stock and this has been the main inducement in the change. It gives to the combination on the other hand, control of Chandler mine whose last statement showed a surplus of \$668,000, with everything in the way of assets marked down to very low figures. But the most important feature is the transfer of the land holdings of the Chicago and Minnesota Company. These properties, which include the Chippewa, Norma, Delaware, Canton and other mines, undoubtedly contain valuable deposits of ore and their development may now be expected. In addition to 27,300 acres of land transferred by the Chicago and Minnesota company, the Minnesota Iron Company has itself 14,270 acres and the Duluth & Iron Range Railway Company holds 40,000 acres. Regarding a large portion of the Minnesota Iron Company's lands however, there is question of title, and development of important portions of the territory may be delayed on this account. It is not learned that this late transfer clears up any of the title matters.

Freights and Shipments During 1890.

A correspondent asks for answers to the following questions with regard to Lake Superior ore during 1890:

What was the price delivered, of standard hard ore; also non-Bessemer ore? In the first case \$6.50 and in the second \$5.50.

What were the total shipments of ore from the Menominee range, from the Marquette range, and from all Lake Superior mines? Menominee range 2,282,237 gross tons, Marquette range 2,993,664 gross tons, and all Lake Superior mines 9,003,701 gross tons.

What were the highest and lowest rates of freight from Marquette and Escanaba? From Marquette \$1.25 highest and \$1 lowest; from Escanaba \$1.15 highest and 85 cents lowest.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, } PROPRIETORS.
F. M. BARTON, }
HOMER J. CARR, - - - Associate Editor and Manager Chicago Office,
210 South Water Street.

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SENATOR SAWYER, Congressmen Blanchard and Henderson and others among the gentlemen who recently made a trip up the lakes as the guests of Senator McMillan and Congressman Stephenson, are earnest in declaring that the object lesson presented to them in the trip is convincing of the absolute necessity of immediately pushing to completion the work of improvement which has already resulted in a saving of freight charges that is amazing. Mr. Blanchard who is to be chairman of the next river and harbor committee, has become so interested that he quotes figures regarding lake commerce as though he had been personally connected with the business for years. "The waterway known as the great lakes," he says "is the grandest inland waterway on the globe." Now the Cleveland vessel owners are providing accommodations on their steamers for other members of Congress and Washington newspaper correspondents and small parties of two to five of these gentlemen will leave for the upper lakes almost daily during the present month.

GENERAL POE says that the Lime-Kilns cut in the Detroit river, one of the most important improvements on the entire chain of lakes and upon which the United States government spent a very large amount of money, is in American waters. This is a surprising bit of news to come at this late date, but it is nevertheless agreeable to lake interests. It will be taken with comfort by the vessel owners who are greatly interested in the care of this important channel, and who will generally agree that General Poe knows what he is talking about, although it may not be his duty to give out an opinion as to the boundary line in this case. Although the cut is very close to the Canadian bank of the river, Gen. Poe says the boundary line turns toward the Canadian shore above Bois Blanc island and cuts off from American waters only small portions of the upper and lower corners of the crossing on the Canadian side.

LIABILITY of collision alone causes the owners of the big lake steamers to carry insurance. Some losses at present result from shallow spots in the connecting rivers of the lakes, but with these channels deepened to 20 feet, as they will be shortly, there will be little cause for anxiety on this account. It must be evident to the underwriters therefore that their risks in the future will be based on the danger of collision. Some of the more progressive among them might profit by the issuance of a policy covering only collision losses and collision liability. If the home companies do not make a move in this direction they may expect some scheme of the kind from the Englishmen who have already gobbled up the greater portion of the best risks on the lakes under the present system of insurance.

ALL reports from Pittsburgh and the Chenango and Mahoning valleys, the iron making districts to which Lake Superior ore producers are most closely related, agree that furnaces have all they can do for the next three months on the heavy sales made during July. Sales are now restricted, as is usual at this time of year, but unless all signs fail, the coming fall and winter trade will place all previous records in the background. It will thus be readily understood that every effort will be made to

bring down all the ore that it is possible to move before the close of navigation, and next spring will find the ore docks empty with a very large portion of the grain crop still in the elevators.

At last it is said that the formal transfer of the Portage lake canals has been made to the government, and that a settlement of the question of title on adjoining lands will await the work of securing quit claims deeds to the same from parties in Europe and elsewhere. The river and harbor act of September last, nearly a year ago, provided for the purchase of these waterways, which are of great importance, and yet the transfer has been delayed up to this time, so that there is now little hope of any benefit being derived from the purchase during the present season.

FROM Toledo comes the latest story of the organization of a company to operate a line of steamers from the lakes to Liverpool. Sensational newspaper writers should at least drop this nightmare until a few millions are spent on the Canadian canals along the St. Lawrence.

Huron Bay Improvements.

The vessel owners are about to ask for the establishment of lights at Huron bay, above Marquette on Lake Superior, where there is an excellent harbor of refuge, and there are other indications that this place will soon take part in the shipping business of the upper Michigan peninsula. The railroad and ore and merchandise dock enterprises, of which J. M. Turner has general supervision, are progressing very favorably, and three town sites are being laid out. J. M. Longyear of Marquette, P. D. Armour of Chicago and J. F. Joy and C. F. Buhl of Detroit are said to be interested in the railroad and docks. The ore docks are to be similar to Marquette's new docks. The railroad from Champion is about 35 miles long and work has begun on extensions from Champion to Michigamme, Republic, Ishpeming and Negaunee, thus tapping all the mines of the Marquette iron range. It is thought that Mr. Longyear's plan is to continue the road to Bessemer on the Gogebic range, where he is largely interested. J. A. Hubbell and others of copper interests are also anxious to see the road extended to Houghton.

The government while building the Standard rock light, had range lights at Sand point, on the east side of Huron bay. This point forms the best harbor in the bay, which vessels now seek for shelter when enabled to make it by daylight. The frames of one of the ranges are in about the same condition that they were when abandoned. If a light is put on this point, vessels entering the bay could take bearings from it and from Huron island light, and shape a straight course for the harbor. A buoy on the reef making out from Point Abbaye would also be of assistance in making the harbor. Most vessel masters are posted regarding the extent of this reef and give the point a wide berth, but now that there is prospect of the harbor being used more than ever before, the reef should be marked.

Wrecks and Heavy Losses.

Fire caused serious damage to the schooner A. B. Pomeroy on Lake Ontario, Sunday. The boat will probably be rebuilt, however, as she was towed ashore and scuttled in 13½ feet of water. She carried about 700 tons and was valued at \$8,000. She was owned by Farwell and others of Detroit. The hull was insured through Crosby, Macdonald & Co. of Chicago to the limit, and her coal cargo was insured for \$2,600 through Smith, Davis & Co. of Buffalo.

The schooner Niagara ashore at Parry Sound is a total loss. The boat had no rating and was not insured.

The pleasure steamer William Alderson burned to the water's edge at Port Dover, Ont., Tuesday.

The report for 1890 of Engineer-in-Chief Melville, U. S. N., has just come to hand and it is one of the most interesting works for marine engineers that the government has ever issued.

Capt. B. Sweeney of the Steamship Virginia.

We are indebted to the Milwaukee Evening Wisconsin for the accompanying portrait of Capt. B. Sweeney, the commander of the magnificent steamer Virginia illustrated in this issue. Capt. Sweeney has been a mariner since 1845 and for thirty-eight years has been a master in the employ of the Goodrich Transportation Company. In all these years has met with no acci-



CAPTAIN SWEENEY.

dent of a serious nature and has not lost a single passenger. He is one of the best known masters on the lakes and at sixty-three years of age is hearty and jovial. He has advanced with the improvements in nautical science during nearly half a century past and is a fitting commander for the costly piece of vessel property which he now controls.

Around the Lakes.

A report from West Bay City says Capt. James Davidson will soon lay the keel for another big wooden steamer.

The topmasts of the schooner Fayette Brown still mark the wreck of the vessel on the course between the Detroit river and Buffalo, Lake Erie.

Shipments of anthracite coal by lake from Buffalo, for the season aggregate 1,144,250 tons, against 841,290 tons in 1890, 918,730 tons in 1889, and 1,159,830 tons in 1888.

Mate John Cassin of the Badger State has been appointed master of the Empire State, vice Capt. L. Green, who was in the Badger State when she went ashore recently on Sable reef, Lake Superior.

Ashtabula ore handlers struck Wednesday for a return to last season's wages, which were cut half a cent a ton in the spring on account of the poor outlook in shipping circles. The advance was granted.

Two of Davidson's big wooden boats had left South Chicago to go to Lake Superior for ore on Friday last when the wheat rate was advanced to 3 cents. They were chased by tugs and returned to Chicago for grain.

Capt. McDougall is now said to be working on a device for rehandling corn which may have become heated, or from whatever cause is liable to become unmarketable. He proposes to improve the condition of such grain so as to insure some return on it for the owners.

During the last week the American Ship Windlass Company took sufficient orders for windlasses and capstans to keep their works going at least six months. Considering the dullness of the season, this is a splendid showing for this old established company.—Marine Journal.

Capt. John Stewart, of the transportation steamer F. & P. M. No. 3, which plies between Milwaukee and Ludington, was for several years in service on the Pacific coast. He tells some interesting stories of his acquaintance with the late King Kalakaua of the Sandwich islands.

Complaint is made that the contractors having in charge the work of dredging at the St. Clair canal have their dump scows towed with only one line made fast to but one corner of the scow. It is feared that careless handling of the scows will result in a collision and serious damage to some iron vessel.

Capt. Sullivan, wrecking master for Worthington & Sill, Buffalo underwriters who hold a large risk on the schooner Helena, sunk in the Sault river, says that the boat's port bow is cut open for 30 feet and her starboard bow 10 feet. Capt. Sullivan thinks she can be raised, after her coal has been removed, by building a bulkhead aft of the opening.

Lawrence O. Lawson, captain of the Evanston life-saving crew, has perfected an arrangement by which the self-bailing lifeboat, when turned bottomside up, can be immediately righted. It consists of a succession of ropes arranged so that by pulling them a certain way it is comparatively easy matter to right the boat in about 30 seconds after it is upset.

A correspondent who read the communication from E. N. Gineer in last week's issue, says he can add another case of boiler blister to those mentioned. It was in Senator McMillan's yacht Idler. The feed water was taken from the condenser and just enough oil came in with it to pit the water tube boiler. The only remedy was to put the feed pipe overboard, and after that was done no more pits were found.

Chase S. Osborn, of Sault Ste. Marie, writes to the World's Fair management that the wreck of the Independence, thought to be the first steamer in Lake Superior, lies near the Sault in good condition. "She blew up in the 40s," he says. "Marine men say she can be raised for comparatively little. She lies in a sheltered place in the river, and an examination by a diver would not be expensive. It would certainly be interesting to see the historic old Independence at the great fair."

Officers of the iron propeller Roanoke stopped a leak in an odd way while crossing Green bay a few days ago. The vessel had begun to sink from a big flow of water when it was found that the suction pipe was broken. There was no way of getting at the leak excepting from the outside and then it was found to be several feet below the surface of the water. Small boats had been lowered and everything was in readiness to leave the craft when a feather pillow was secured and with the aid of a pike-pole and the suction it was drawn over the source of trouble.

Transfers of vessel property: Tug Dragon, Ashtabula Tug Association to Carlin, Stickney & Cram of Saginaw, \$4,000; schooner Lake Forest, half interest, V. W. Foster of Chicago to W. D. Hitchcock of Evanston, Ill., \$4,000; schooner City of Chicago, Western Paving and Supply Company of Chicago to W. D. Hitchcock of Evanston, Ill., \$8,000. The schooner Surprise will be sold at marshal's sale at Chicago on the 11th inst. to satisfy a claim of \$750 held by S. B. Grummond of Detroit; tug H. F. Bues, C. H. Starke & Co. of Milwaukee to J. A. & D. E. Richardson of Ludington, \$3,500.

H. McMorran of Port Huron has entered into a contract with the underwriters to raise the schooner Helena, sunk recently in the Sault river. The price for the work is about \$8,000. The legal action growing out of the sinking of the Helena will be similar to the Ohio-Siberia-Mather case tried last winter. It is alleged in libels filed against the steamers Jay Gould and Mariska that the Helena was going up the St. Mary's river, in tow of the steamer Havana, and the Jay Gould, also up-bound, attempted to pass her, throwing her nearly broadside across the channel. The Mariska, coming down, struck the boat a solid blow in the bow, while the Gould collided with her stern.

Assistant Secretary of the Treasury Spaulding has sent a letter to the collector of customs at Duluth in which he says that after a full consideration of the subject the department is of the opinion that Canadian grain arriving at Duluth in transit may be reentered at that port for transportation and exportation via any port on the Atlantic seaboard in the same manner as though imported at Duluth directly from Canada, whenever it is the desire of the owners of the grain or their authorized representative that this be done. He has therefore modified instructions sent to the collector on May 20 last. The modification is made so as to prevent unnecessary injury to the business of American railroads which would be caused by the exportation from Montreal instead of from Duluth of large quantities of wheat from Manitoba, a result which would follow unless the grain could be shipped under the arrangement now sanctioned by the treasury department.

SUBSCRIPTION TO THE MARINE REVIEW IS \$2 PER YEAR, BUT IF YOU SUBSCRIBE DURING THE NEXT 60 DAYS YOU WILL RECEIVE THE DETROIT TRIBUNE (WEEKLY) ONE YEAR, FREE OF CHARGE.

Some Claims in the Pontiac-Athabasca Case.

The action of the Cleveland Iron Mining Company in making a contract with Capt. James Reid for raising the steamer Pontiac, sunk in the Sault river, is taken without prejudice to their right to abandon the boat, of which they have given notice. The owners of the boat figure that she may, on being raised, be found to have sustained injuries in addition to those caused by the accident. The boat's position across the channel with the current quite strong may bring on additional damage. The wrecker's contract does not call for 25 per cent. of the value of the Pontiac and cargo before the boat was sunk. He will be paid 25 per cent. of the value as fixed by appraisal after the boat is raised and delivered in dock. As the boat may not be then valued at more than \$100,000, Capt. Reid's contract will probably not be accompanied by as great a margin as had been expected. Preparations for raising the boat have already begun.

The officers of the Pontiac will claim that the Athabasca and their boat were but three to five lengths apart when the cross signal was blown by the Athabasca. A report of Capt. Foote's version of the accident, said to come from Angus MacMurchy, solicitor for the Canadian Pacific Railroad Company, owning the Athabasca, says: "With the Pontiac coming down the river near Wilson's dock and the Athabasca coming up, Capt. Foote of the Athabasca sounded one whistle, claiming his water and kept as near the Canadian shore as possible to let the Pontiac pass on the port side. Seeing that he was likely to be forced aground Capt. Foote sounded his whistle to indicate that he would pass on the starboard since the Pontiac would not, or could not, let him pass on the port. This was refused by the Pontiac, which still insisted in passing on the port side. A moment later the two steamers came together."

"If I had known that such would be the claim of the Athabasca," said Mr. Goulder, leading counsel for the Pontiac, in referring to this statement, "I would have been saved a great deal of labor in the matter of securing testimony after the accident."

From this report it would appear that Capt. Foote of the Athabasca admits having crossed the signals on the claim that he was crowded over shallow water on the Canadian side, but deep laden vessels can still pass the sunken Pontiac on either side.

Lake Superior Lumber.

Logs from the Lake Superior district around Two Harbors are being towed to Ashland mills. This opens up a new timber country to the Chequamegon bay mills, of which there are now twelve in operation. Chicago is drawing largely on this Ashland lumber but the demand at Buffalo and Tonawanda is not so urgent. Freight rates from Ashland during the past week have ruled at \$2.37½ to Chicago and \$2.25 to Buffalo. Chicago dealers have been buying freely for some time past. One sale of 5,000,000 feet from F. Boutin of Bayfield to S. B. Barker of Chicago was reported a few days ago. This lumber business has helped the general freight market.

Favoring Coil or Tubulous Boilers.

Engineer-in-Chief Melville of the bureau of steam engineering, navy department, in his report for 1890, says in connection with a detailed statement of the tests of coil or tubulous boilers recently made by the department: "The use of boilers of the coil type in vessels of small displacement and enormously large power is already a necessity, and it will not be many years before their use will be general in all steam vessels, merchantmen as well as men-of-war. The most serious objection to them is that they require clean fresh water for feed, but by the use of evaporators and filters this can be accomplished. Coil boilers are cheaper for the same power than either the Scotch or the locomotive type. They can be taken to pieces and shipped in comparatively small packages to vessels in any part of the world.

They can be forced with greater safety than can shell boilers, since in a properly designed coil boiler the circulation of water will increase with the intensity of the fire, and if steam is washed off a heating surface as soon as it is formed, no over-heating or burning can occur. A serious explosion with this type of boiler is impossible. The decrease of weight for a given power is but one of the advantages to be gained. In a coil boiler all the time necessary to get up steam is that required to start and build up the fire, say half an hour with soft or semi-bituminous coal.

Naval Reserve Movement Spreading.

Massachusetts, New York and Rhode Island all have naval reserves now and the presence of war ships in different ports of these states during the past few months has given the men needed practice in the handling of modern guns. The "white squadron" in New York last week gave the reserve of that state an opportunity for drill. If a naval reserve is needed on the coast it would certainly be of equal assistance on the lakes in event of strained relations with any of the foreign powers, and it seems strange that the lake states have not taken advantage of the opportunity offered by the general government for the establishment of a naval militia. Assistance in furnishing opportunity for practice might be expected from the naval department, and it is certain that the merchant fleet of the lakes contains many steam vessels that might be brought into service in event of their being needed.

Bradstreet says of the reserve on the coast: "The organization of an efficient body of naval militia with which to supplement and strengthen, in time of war, the regular naval forces of the United States, as the national guard in the various states is expected to act with reference to the regular army, has long been a subject of discussion. As far back as the administration of President Jefferson the establishment and equipping of such a body was suggested by the executive. Like many other propositions of similar character having for their object the placing of this country in a position of security in case of foreign or domestic complications, it has languished and often been forgotten. It is probable that the impetus given various schemes of national defence toward the close of the term of President Arthur and during those of Cleveland and Harrison has had an important effect on the movement looking to a naval militia. The construction of a new navy causes the authorities some embarrassment. The present allowance of 7,500 men and 750 boys to the naval strength of the country is little enough, and the continued addition of new war vessels calls for more men than the present establishment affords. In the event of a sudden call the present peace strength of the navy would fall far short of actual needs, and the desirability of having a disciplined body of militia to supply this need becomes self-evident. The first successful effort to form such a body of militia was begun about four years ago by the shipping and yachting interests of New York. The first legal step was the passing of a bill by Congress authorizing the maritime states to organize naval forces. Massachusetts was the first to take advantage of this law, New York and Rhode Island followed. All three of these states now have strong organizations."

Against Steel Castings.

In my report of last year attention was called to the ill success that had attended numerous attempts to use steel for machinery castings, and the experience of the past year has been to still farther emphasize all that was then said. Reports have been received of failure after failure to produce sound castings of comparatively simple form and moderate weight, and design and patterns have been altered in the hope that better results might be obtained with change of form. In many cases the changes have availed nothing, and after long delays application has been made to use forged steel or cast iron; in others, when the dimensions have been increased to nearly what would be required for the latter metal, sound castings have been obtained. The truth of the matter is that the manufacturers have not kept pace with the demands of the consumers, and unless there is a very great improvement in the making of steel castings, and in a very short time, a return to cast iron will be inevitable, since it is evident that the only reason for using the more expensive material is that the weight of the parts may be decreased in the proportion of its greater strength.—Engineer-in-Chief Melville, U. S. N.

Affairs in Admiralty.

LAKE VESSELS MUST PAY FOR GRAIN SHORTAGES.

Brief mention was made a short time ago of the decision of the New York court of appeals in the case of Mr. Robert R. Rhodes of Cleveland against Newhall and others, grain shippers of Buffalo, resulting from a shortage of 827 bushels of grain in a cargo delivered at Buffalo by one of Mr. Rhodes' vessels. The vessel was held to pay the loss, and now that this case seems to settle the matter of shortages, according to the present system of conducting this business on the lakes, a more detailed summary of the decision will prove interesting. The bill of lading of course acknowledged receipt of the full cargo and contained the provision that "all deficiency in cargo should be paid by the carrier and deducted from the freight and any excess in the cargo to be paid for to the carrier by the consignee." The court said: "It seems reasonable that parties should agree upon the quantity of grain shipped for transportation to distant markets with a view of avoiding controversies between the carrier and the consignee upon the subject. The cargo was here weighed into the vessel under the supervision and control of the carriers, and they had every opportunity to learn the quantity of grain actually received by them. They thereupon entered into a contract with the consignor whereby it agreed that any deficiency in the cargo should be paid for by them, and deducted from the freight, and any excess in quantity should be paid to them by the consignee. The deficiency and excess referred to could have related only to a variation from the quantity specified in the bills of lading, as there was no other standard furnished by which a variation could be estimated. This was a contract which the parties were competent to make and a consideration for the promise to pay for any deficiency was secured by the right to collect the value of any excess. These were mutual obligations and were obviously incurred for the purpose of avoiding disputes over the quantity actually received by the carrier, and to estop him from disputing the correctness of his acknowledgement. The parties plainly contemplated the contingency of a variance in the course of transportation between the quantity of grain admitted to have been received by them and that consequently delivered, and pro-

vided in express terms the mode by which their respective rights should be adjusted in that event. The language of the contract is plain and unambiguous, and the right of the parties to make it is indisputable."

Although the federal courts show a disposition to grant fair remuneration for salvage service in all cases of merit, the awards are seldom as high as the amount demanded by the vessels rendering assistance. In New York a short time ago, Judge Brown heard the case of the owners of the steamer La Flandre against the Veendam. The Veendam, a steamship with 600 passengers and cargo worth \$375,000 on a voyage from Rotterdam to New York, broke her shaft 900 miles east of Halifax. The La Flandre in answer to signals of danger took her in tow for three days, when the Veendam having repaired her shaft, steamed ahead, outran the La Flandre and became lost in a fog, not renewing signals or seeking to keep the La Flandre's company. The next morning the La Flandre, not being able to find the Veendam, and supposing her to have gone ahead, resumed her voyage. A half hour after the Veendam disappeared in the fog her shaft again gave way, and after 24 hours delay it was again repaired, so as to enable her to steam into port. The La Flandre was worth \$200,000. The towage was in part through fog and in circumstances of special danger. The court held that the service rendered was of a salvage nature; that the acts of the Veendam amounted to a termination by her of the salvage service before reaching port; that the La Flandre fulfilled her duties and that there was no abandonment by her of the salvage service, but the award was only \$8,500:

Judge Benedict of the district court, New York, found no difficulty in disposing of a collision case recently. Two steam vessels, the Panama and Kanawha, were meeting head on. The Panama determining to pass starboard to starboard, blew two whistles and starboarded, without waiting for the assenting whistle of the Kanawha. On perceiving that the Kanawha had not starboarded also, the Panama again changed her wheel and attempted to pass port to port, but the vessels collided. The court held that the Panama was in fault for attempting to pass contrary to rule, without waiting the assent of the other vessel.

It seems to be settled now that the damage to the whaleback steamer Thompson's boilers was caused by getting oil into them. This allowed the great heat to warp the plates over the fire-box. The builders of the boilers in such a case would not be responsible for the loss.—*Buffalo Courier*.

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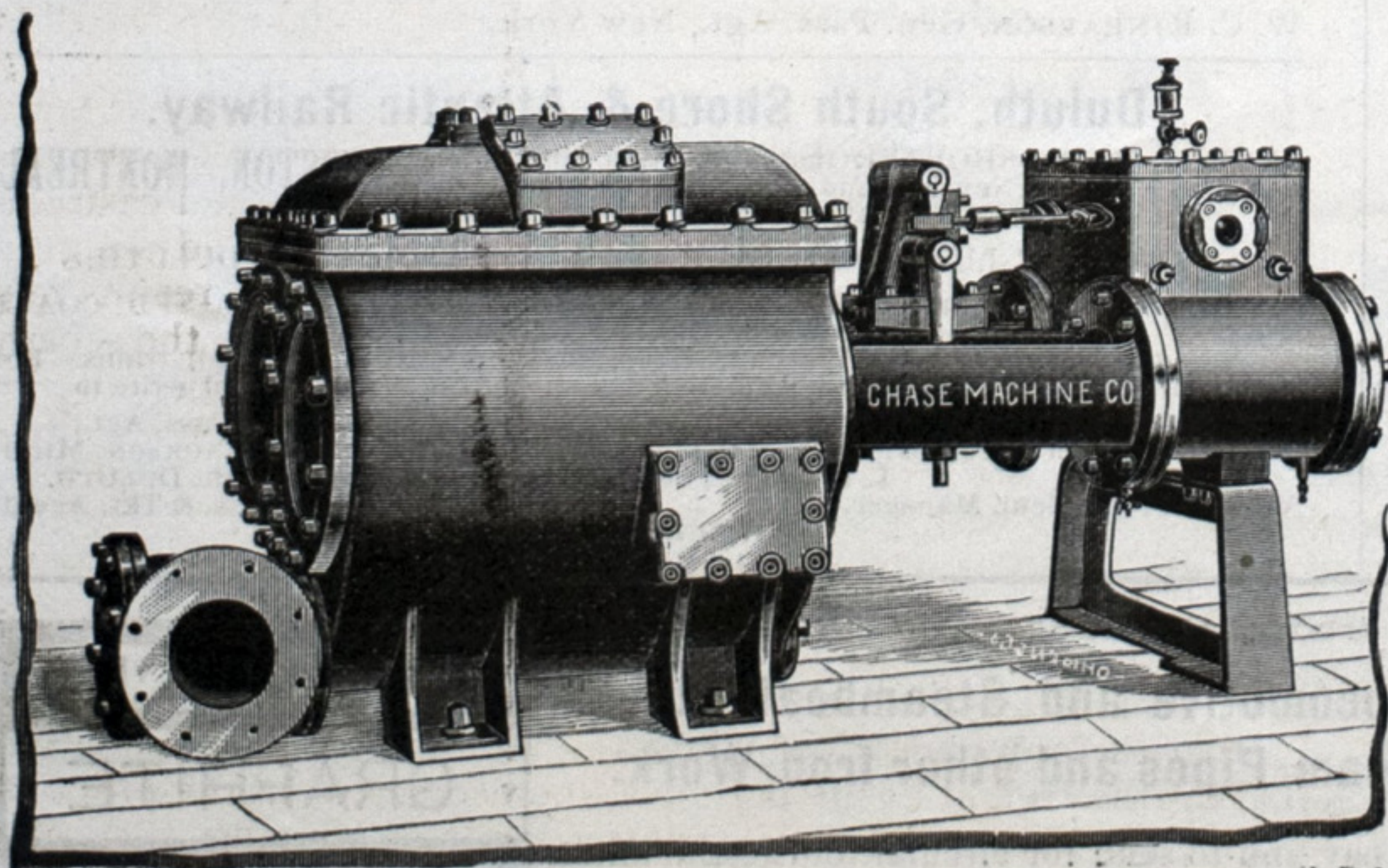
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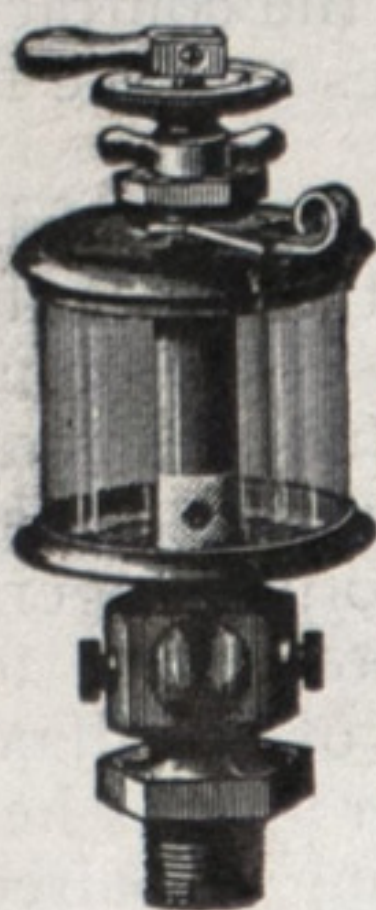
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Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind, or wishing to purchase vessels, are invited to take advantage of the same offer. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 510 Perry-Payne Building, Cleveland, O.

63—DREDGE—At auction Wednesday, July 1, 11 a.m., at a point a short distance west of Willow street bridge, o'd river bed, Cleveland.

64—For Sale at a Bargain—Steamboat 78 feet over all, 18 feet beam; double engines; hull in first-class condition.

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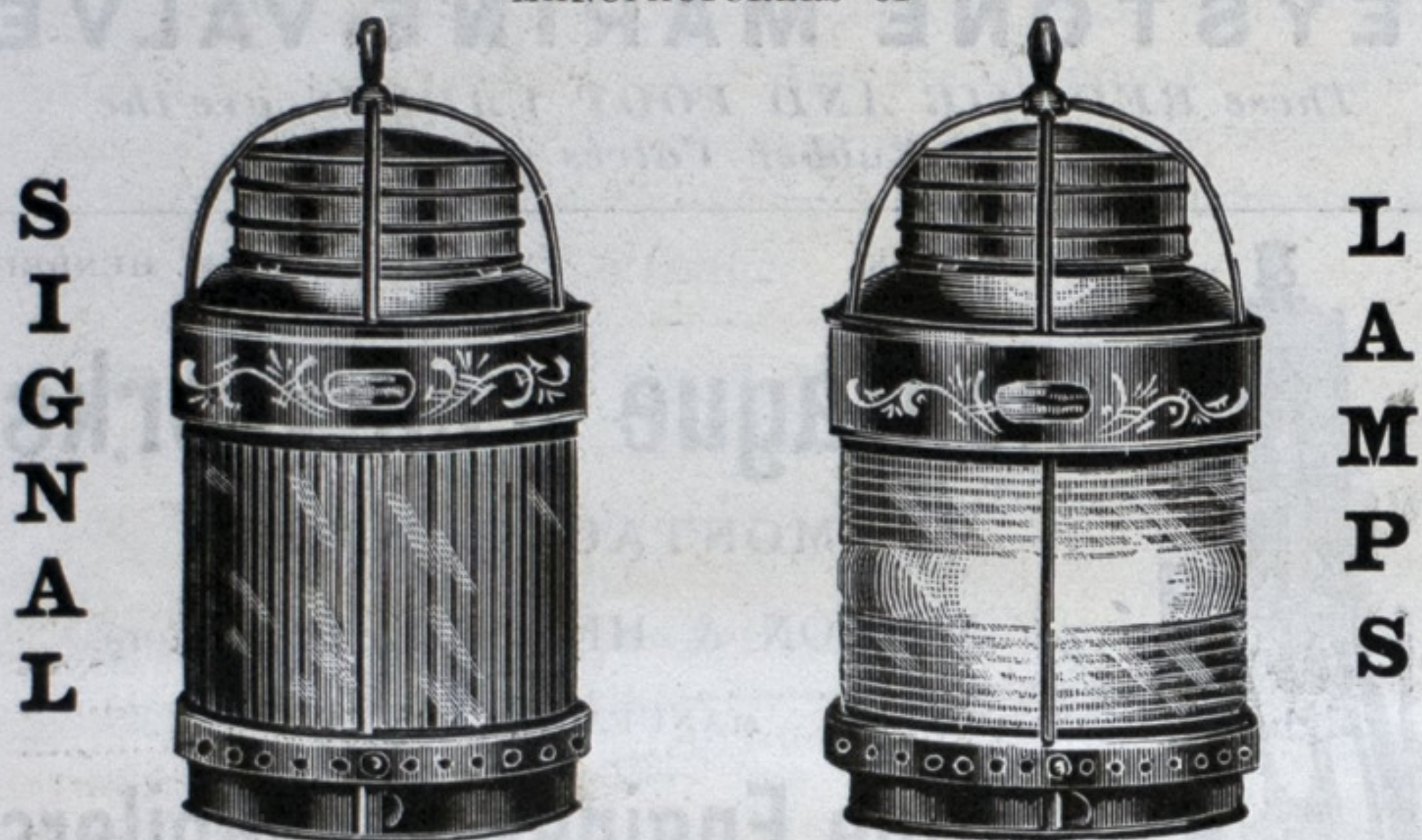
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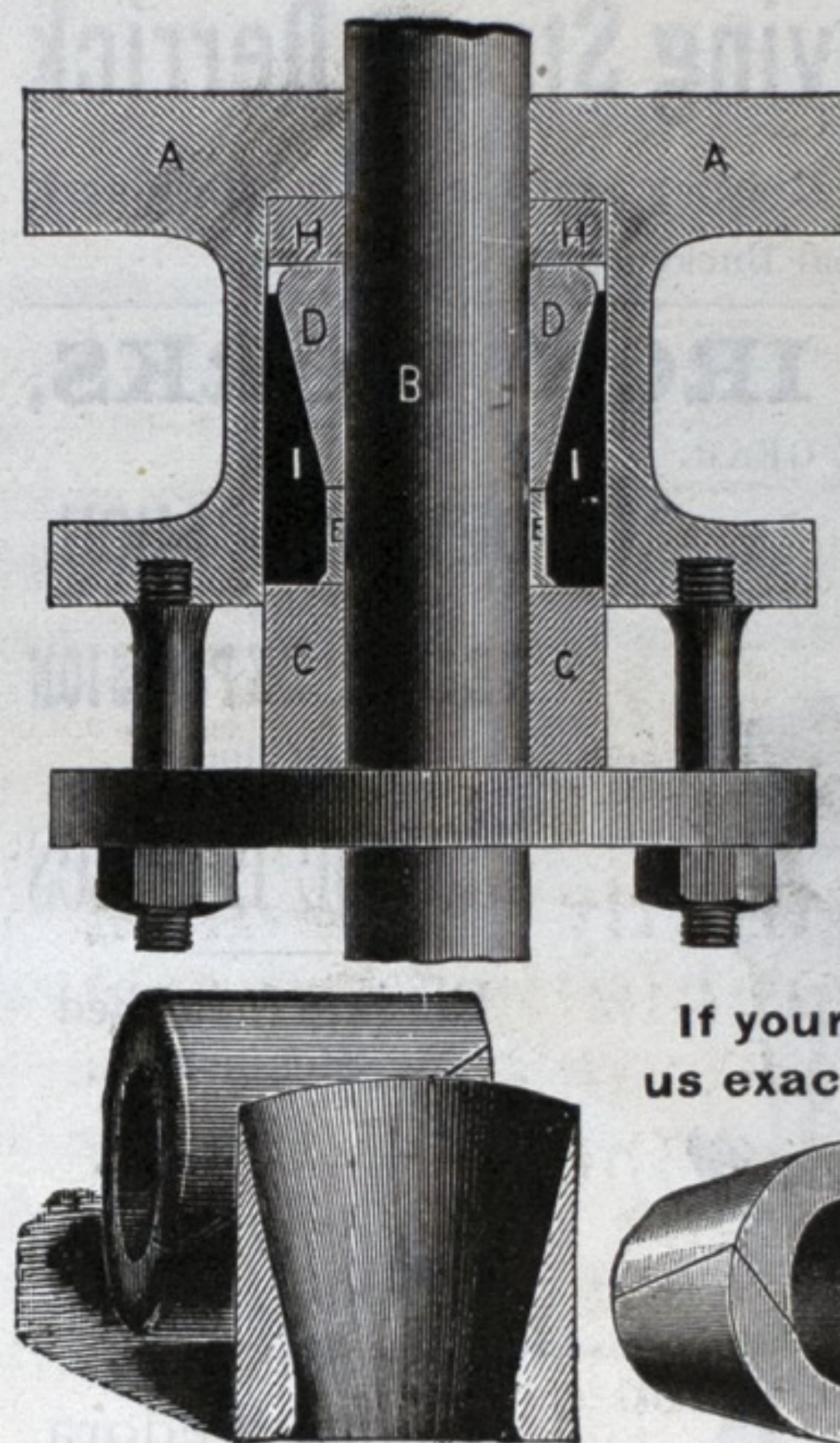
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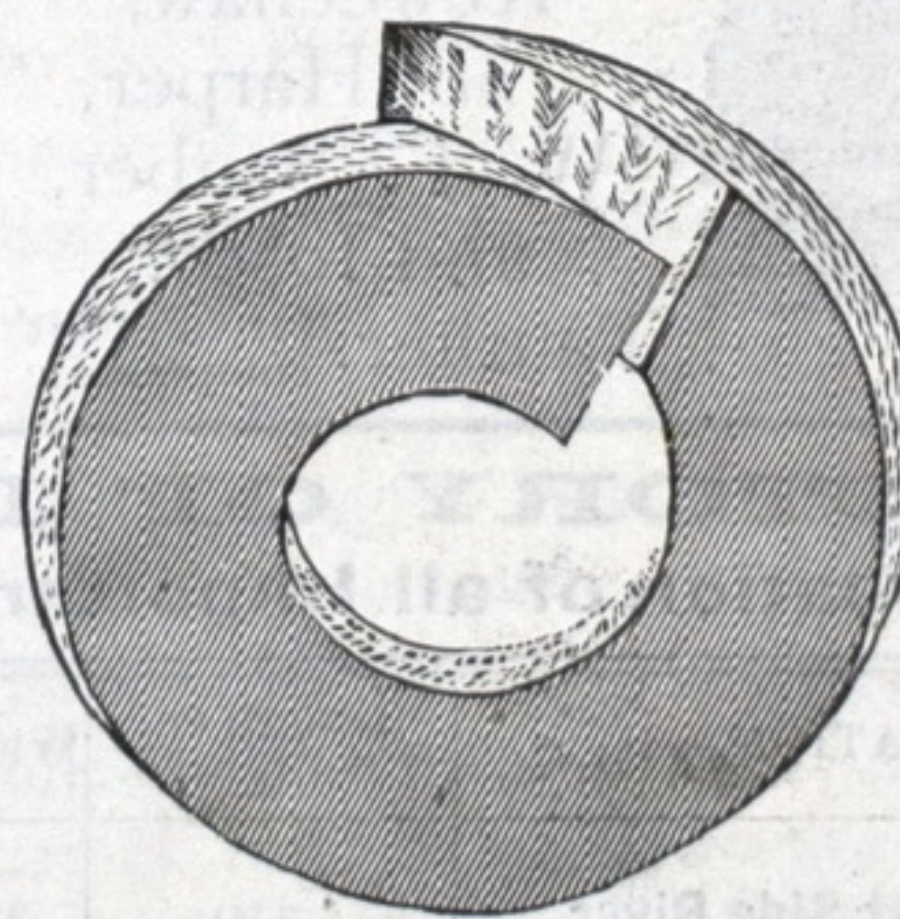
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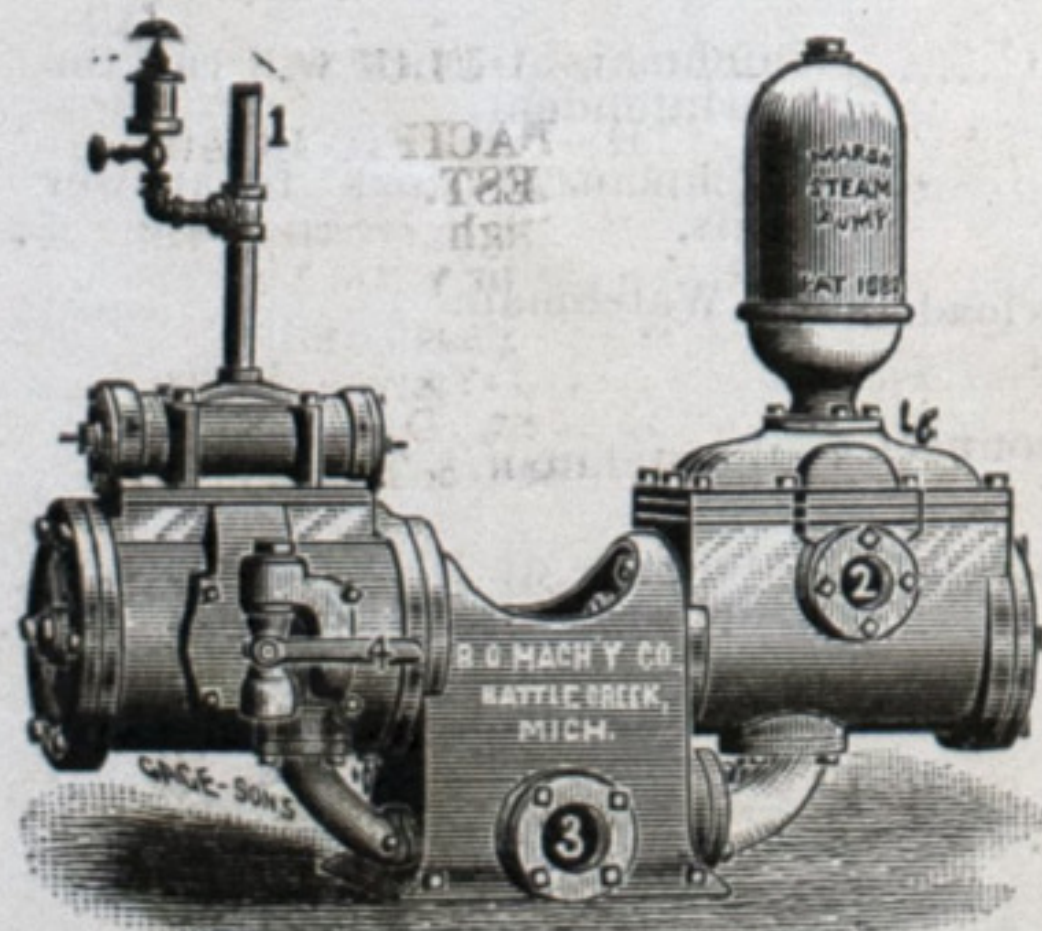
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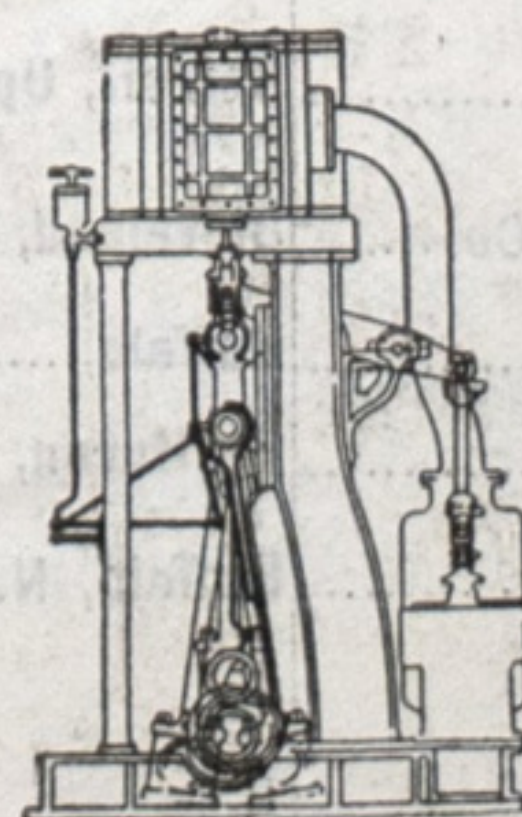
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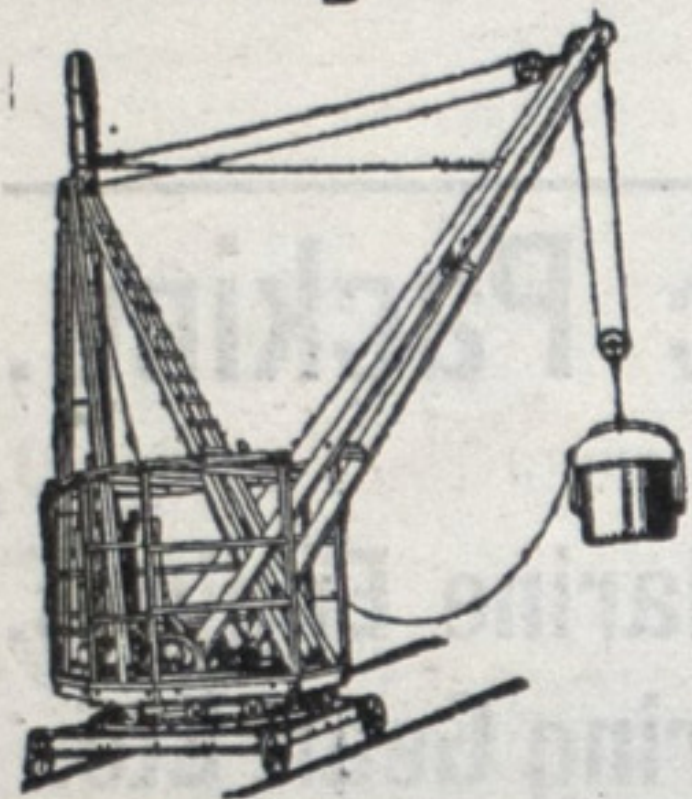
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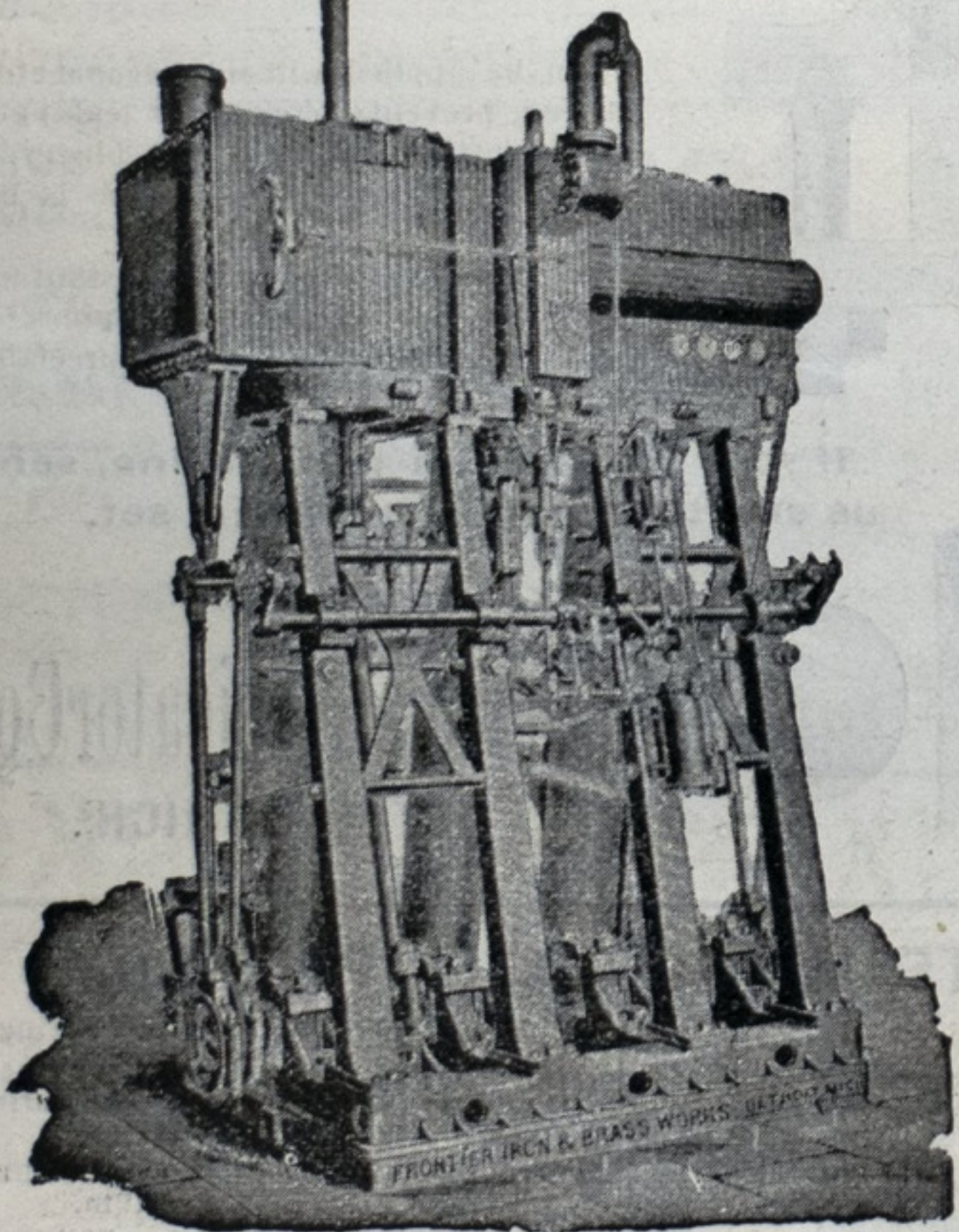
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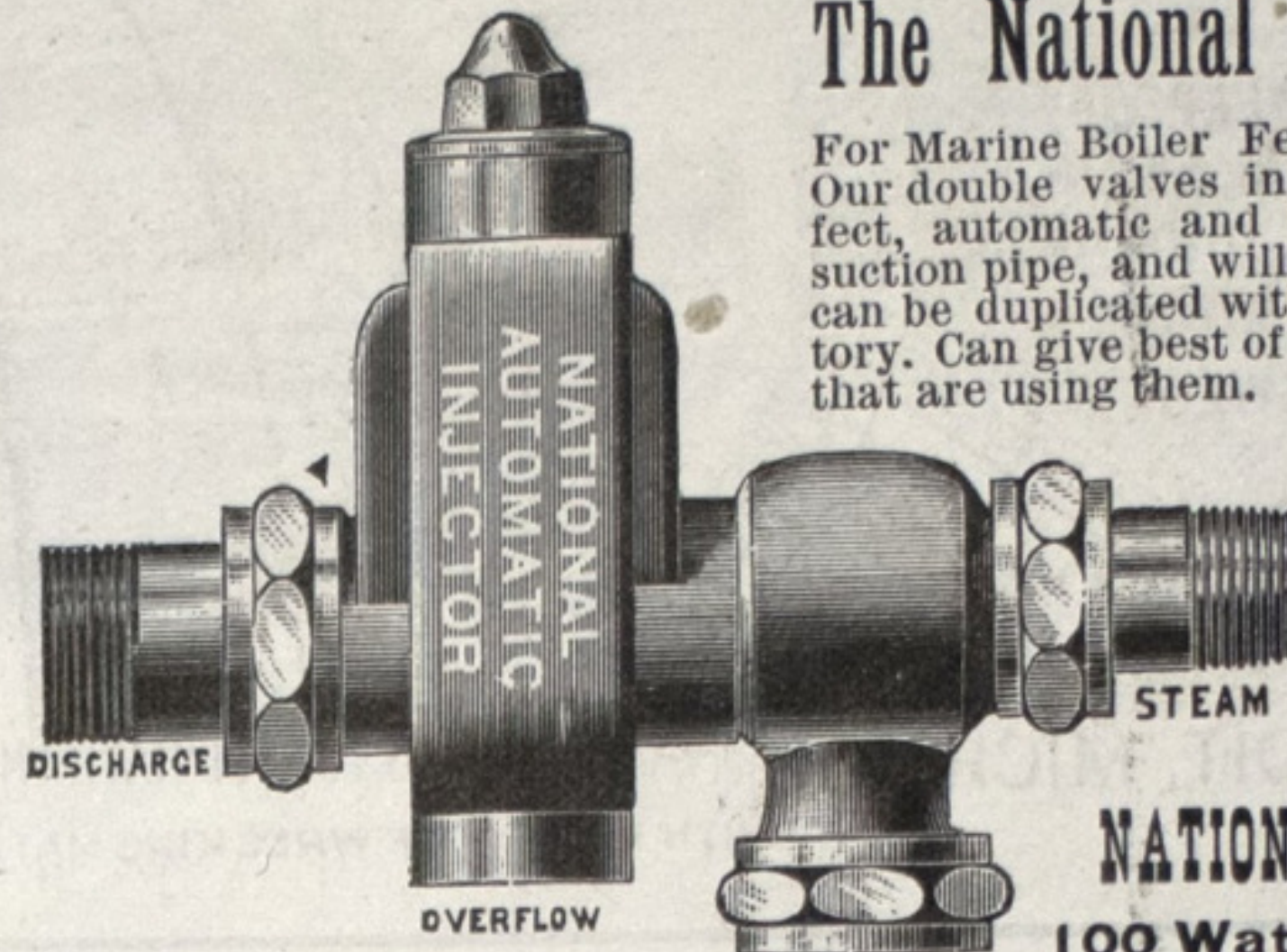
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